

City of Dayton, Ohio Department of Central Services Division of Purchasing

PROFESSIONAL ENGINEERING SERVICES FOR MASTER PLAN FOR CITY OF DAYTON OH'S WATER RECLAMATION FACILITY

This Project is being solicited with a 20% Small Business Enterprise (SBE) participation

REQUEST FOR PROPOSAL (RFP) No. 16031D

April 2016

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SECTION 1 – PROPOSAL INSTRUCTIONS

This Project is being solicited with a 20% Small Business Enterprise (SBE) participation.

Small Business Enterprise (SBE) subcontractor(s) proposers on this project must be certified with the City of Dayton Human Relations Council as such. Prime Contractors must attend the mandatory pre-proposal meeting in its entirety. A company must be certified as a SBE for the SBE goal at the time of the proposal due date. The list of certified companies in the City's Procurement Enhancement Program can be found using the following link: http://daytonhrc.org/business-technical-assistance/certification; click the "PEP Certification List" link under Procurement Enhancement Program.

1.01 COMMUNICATIONS REGARDING THIS PROJECT. Please direct all communications regarding the RFP Process to:

City of Dayton, Division of Purchasing, Room 514

Donita Jo Garner CPPB 101 West Third Street Dayton, Ohio 45402

Telephone: (937) 333-4035 Fax: (937) 234-1600

E-Mail: donita.garner@daytonohio.gov

All communications/questions concerning this RFP must be submitted in writing referencing the specific paragraph and page number. The deadline for questions is listed in Section 1.02 (RFP Schedule). Written responses will be prepared by the City and posted on the city's web site by the date listed in Section 1.02. Changes to this RFP will be made only by formal written correspondence issued by the City.

A copy of this proposal and any additional documentation may be found at the City of Dayton's website at: http://daytonohio.gov/bid

1.02 RFP SCHEDULE. The following is the anticipated schedule for the RFP Process:

Issue RFP:	April 28, 2016
MANDATORY Pre-Proposal Meeting and Site Visit:	Meeting will be at the Division of Water Reclamation's Training Center, 2800 Guthrie Rd, Dayton OH 45417 at 1:00 P.M. local (Dayton OH) time on May 17, 2016. Site Visit will be held immediately after Pre-Proposal Meeting
Last Day to Submit Questions:	11:00 A.M. local (Dayton OH) time on June 7, 2016
Written Responses to Questions:	June 14, 2016 no later than close of business
Due Date for Proposals:	2:30 P.M. local (Dayton OH) time on June 28, 2016

- 1.03 PRE-PROPOSAL MEETING AND SITE VISIT. The City shall conduct a MANDATORY pre-proposal meeting. The date and location of the meeting is listed in Section 1.02 (RFP Schedule). No previous site visit(s) to this location will be considered as substitute for attending this MANDATORY site visit. The intent of the pre-proposal meeting is to:
 - Review the Request for Proposal
 - Review the City's Procurement Enhancement Plan (PEP) procedures
 - Answer questions

This <u>shall</u> be the only opportunity for the Contractors to meet with the City. Each proposer should limit representation at this meeting to no more than three (3) persons. **Attendance at this meeting is mandatory for all who intend to submit a proposal.**

1.04 SUBMITTING A PROPOSAL. Each Contractor seeking consideration for performance of services related to the project must submit a Proposal. Proposers are to submit one original copy signed by an officer authorized to bind the company and six (6) copies of their written proposal. All proposals shall be sealed, properly addressed with the name of the Contractor and sent to:

RFP No.16031D – Professional Engineering Services for Master Plan for City of Dayton OH's Water Reclamation Facility
City of Dayton, Division of Purchasing, Room 514
Donita Jo Garner CPPB
City Hall
101 West Third Street
Dayton, Ohio 45402

Sealed proposals must be received at the above address, in Room 514 by time/date indicated in Section 1.02 (RFP Schedule). Proposals received after the scheduled date/time will not be considered. All supporting materials and documentation must be included with the proposal. The responsibility of timely delivery lies solely with the proposer. Faxed and e-mailed proposals are <u>not</u> acceptable.

The City reserves the right to reject any and all proposals, to waive any irregularities in a proposal, or to accept the proposal(s) which in the judgment of proper officials, is in the best interest of the City. The City reserves the right to accept a part or parts of a proposal unless otherwise restricted in the RFP or issue subsequent Requests for Proposal. The City reserves the right to approve or reject any sub-Contractors proposed for work under this proposal or waive any minor irregularities

The City reserves the right to select the successful proposer on the basis of proposals received, without seeking further information for clarification from proposers. Upon review of proposals, the City may designate the most qualified proposals as finalists. These finalists may be invited to make oral presentations and participate in a question and answer session with the City. The City shall have the right to visit selected user sites, should this be deemed necessary.

All federal, state, and local laws regarding competitive bidding, anti-competitive practices, and conflict of interest shall be applicable to this RFP.

The City does not guarantee that any contract will be awarded as a result of this RFP. In the event that a contract award is made but the contract is not executed, the City does not guarantee that the contract will be re-awarded.

- 1.05 REQUIRED PROPOSAL CONTENTS. All brochures and supplemental documentation shall be included with the original and all of the copies. If not, the proposal may be considered as non-responsive. Contractors are required to submit the following information in their proposal:
 - Letter of Transmittal: The proposer shall provide a transmittal letter with authorizing signature for the proposal. The letter must briefly summarize the vendor's ability and willingness to perform the services required by the RFP. The letter must be on the form provided in Exhibit A.
 - Company Profile and Background. Provide the following information:
 - o **Location** The street address of the proposer's company headquarters.
 - o **Local Office of Proposer** Provide the location of the proposer's office nearest to Dayton, Ohio. Include the local office, a contact name, address, telephone, and fax numbers.
 - o **Company's Primary Business** State the proposer's primary business, the number of years in the proposer's industry, and the number of employees assigned to these related activities.
 - o State the legal make-up of your company: sole proprietorship, partnership, corporation, etc.

- Please list and Lawsuits that you are currently engaged in. Please provide any and all suits
 either with the City of Dayton or any other Municipalities (include, but not limited to Federal,
 State, Local or other Municipalities and Governmental agencies).
- **Key Personnel Information.** Provide the name, title, mailing address, telephone number and e-mail address of the persons who will function as the City's primary contact and back-up contact person. Provide brief resumes/qualifications of personnel who will be primarily involved in this project. Include any certifications earned, special training taken, and memberships in professional groups. Complete Form found in Exhibit A.
- **Proposal Response** as per Section 2.
- Statement of Exceptions to RFP requirements: Provide a detailed description of any exceptions taken to the requirements of this RFP, including the City Standard Terms and Conditions in Section 3. Exceptions shall be referenced to the applicable RFP section/sub-section numbers. Any other departures from the city's RFP are to be identified and failure to do so shall make the proposal non-responsive. City's Standard Terms for Payment are Net 30 days from dated of invoice once the project is completed, unless otherwise negotiated. If you cannot comply with this, please state any changes in the Statement of Exceptions to the RFP Requirements.
- **References**: Provide a list of references on form provided as Exhibit B. The City is particularly interested in contacting your governmental clients in the state of Ohio.
- **Project Time Line** All proposals shall include the project time line for each task.
- Good Faith Waiver: Please use Exhibit D, should you not be able to meet the Goals as stated for this project.

1.06 ITEMS THAT DISQUALIFY A VENDOR IMMEDIATELY.

- Incomplete or non-responsive proposal
- Failure of proposer to attend or send a representative to the **Mandatory** Pre-Proposal Meeting.
- Failure to complete Good Faith Waiver in its entirety.
- Inability to obtain Affirmative Action Assurance approval prior to award of the contract. See Section 3.06 for information on how to contact the Human Relations Council.
- 1.07 CRITERIA. The selection committee will evaluate each proposal submitted based on the following criteria. After receipt and review of the written proposal, the City may elect to have the proposal presented in person, or clarifications submitted in writing.

Proposers shall not assume that any information shared with the City prior to this RFP will be considered in the Evaluation process of this RFP. Evaluation team may or may not have prior knowledge of any discussions and processes. **Evaluation will be completed on the information submitted in proposal only**.

	Evaluation Criteria for Goods and Services					
Item	Description	Percentage Possible				
1	Previous Experience	35%				
2	Schedule and Fee	20%				
3	Quality Assurance/Quality Control Plan	10%				
4	Technical Approach/Key Personnel/Project Team	30%				
5	Dayton Local Business	5%				
	Total Points	100%				

"If the City determines, at the City's sole discretion, that the Consultant has or will have a pecuniary interest with/in any potential solutions provider and/or in any potential solutions proposed to City, the City reserves the

right to exclude the Consultant. The City also reserves the right to request the Consultant to serve as its Project Manager during the implementation of any selected solutions."

Evaluation Criteria Explanation

1. Previous Experience:

Consultants seeking consideration shall submit a general firm overview with a description of facility master plan experience. Provide client name, facility name, and contact person with e-mail address and phone number. Consultant shall have served as the prime and only U.S. projects will be considered.

2. Schedule and Fee:

Consultant shall provide a schedule and fee based on the items provided within the scope. Fee will be utilized to rank consultants for this item.

3. Quality Assurance/Quality Control Plan:

Consultant shall provide a detailed explanation on company policy regarding deliverables and processes in place to review all information prior to submitting to the Department of Water. Any additional project related QA/QC measures should be identified within this section.

4. Technical Approach/ Key Personnel/Project Team:

Consultant shall provide details on how the project goals will be achieved as outlined in the project scope. Consultant shall provide detailed information regarding the Key Personnel/Team for this project. Project teams with other firms are acceptable and may be identified within the proposal but keep in mind that from a contract perspective the Prime Consultant will have responsibility to provide all deliverables identified within this RFP. Emphasis will be placed on previous experience with facility master plans in previous ten years.

1.08 MISCELLANEOUS ITEMS TO BE ADDED IF NECESSARY.

• All Contractors submitting a proposal will be notified, upon final determination by the City, of the firm selected to perform the requested work.

SECTION 2 – SCOPE OF PROJECT

2.01 Purpose and Need / Project Description.

The City of Dayton, Department of Water (Dayton Water) is seeking proposals from highly experienced and professional consulting firms to perform a Facility Master Plan for the Water Reclamation Facility (WRF). Dayton Water sits poised at the nexus of several major decisions that will impact the WRF for years to come. The decisions include flow, loadings, treatment processes for the liquid and solids streams, technology investments, asset management, knowledge management, operational efficiency, and regulatory compliance.

Major goals of the project include:

- How will WRF meet impending nutrient National Pollution Discharge Elimination System (NPDES) limits
- Could the WRF benefit/handle flows from other municipalities
- What level of investment is needed to maintain or improve infrastructure, based on asset condition, capacity and criticality
- How can we operate and maintain the WRF more efficiently

• What cutting edge technologies/innovations could we benefit from

This project is to establish the best plan for the City given the magnitude, diversity dependencies and the sheer impact of these decisions, Dayton Water staff has determined the best starting point is development of a comprehensive Facility Master Plan. The investment in the Facility Master Plan will provide the foundation for the capital investment of many millions of dollars well into the future of the plant.

2.02 BACKGROUND INFORMATION.

Following is a brief history of the City of Dayton, Department of Water, Division of Water Reclamation. The City of Dayton's water pollution control history began in the late 1800's with the passing of a city ordinance that prohibited the indiscriminate discharge of domestic wastes in a section of the Mad River. In the late 1890's the City of Dayton Commission approved the building of the first underground sewers. Separate drainage piping was built for both storm water and sewers in the lower areas of the City to prevent the back-up of wastewater in basements during periodic flooding of the river. Today, the City of Dayton has one of the most complete separate sewer systems in the United States.

The City of Dayton continued its pollution control program with the construction of a wastewater treatment plant at the present site in the 1920's which consisted of preliminary and primary treatment facilities. The preliminary treatment consisted of circular two (2) grit removal tanks and the primary treatment consisted of several Imhoff tanks. In 1928, a new administration building was built and in 1938, a trickling filter plant was incorporated in addition to the Imhoff tanks to provide secondary treatment. This facility was in operation 34 years before the federal government required universal secondary treatment.

As time progressed additional treatment became necessary. In 1954, the Imhoff tanks were replaced with a primary treatment facility consisting of grit removal, pre-aeration, and primary sedimentation basins. A sludge handling facility also was constructed which consisted of drying beds, filters, incinerators, and digesters. During 1970 and 1971, effluent chlorination basins and additional final settling basins were added to the facility. Additional renovation converting the trickling filters from standard to high rate operation was completed in 1971.

Additional modifications were completed between 1983 and 1986 that were intended to provide additional hydraulic capacity and provide efficient treatment even during wide variations in plant flows. The addition of advanced wastewater treatment (AWT) facilities at the Dayton wastewater treatment plant began in 1986. The AWT facilities consist of a two-stage biological treatment system for nitrification, effluent filters, chlorination, dechlorination, and post aeration. Sludge handling consists of the anaerobic digesters with dewatering and beneficial use of sludge by a private contractor using land application. Dissolved air flotation (DAF) thickeners concentrate the waste activated sludge from the second stage biological treatment system before it is sent to the anaerobic digesters. These facilities were put into operation in June, 1988, and were producing an effluent that met USEPA and OEPA standards by the federally mandated deadline of July 1, 1988. In 1999, the Division of WWTP discontinued feeding gaseous chlorine at the chlorine building and started feeding liquid sodium hypochlorite stored at the RAS building.

The only complete master plan for the facility was completed in 1978.

2.03 Scope of Work / Project Requirements.

Consultant shall outline a proposed technical project approach, including specific tasks required to execute the project:

- Need for expansion(s) to accommodate growth.
- Potential regulations, including lower phosphorus discharge limits and mass based limits.
- Wet stream hydraulic and treatment process capacities.
- Biosolids handling, storage and disposal.

- Equipment and other infrastructure repairs and replacement.
- Structural and overall assessments of buildings and tankage.
- Electrical and Supervisory Control and Data Acquisition (SCADA) systems.
- Support systems (non-potable water, etc.).
- Develop a plant hydraulic model and a process model.
- Energy audit.
- Review existing records and perform survey to develop an as-built record of the plant facilities.

The Facility Master Plan should include a comprehensive evaluation of the facilities related to both capacity and condition through an Asset Management lens. It should also include a determination of design flows and loadings, evaluation of potential alternatives, and prioritized recommendations for improvements and life cycle costs.

Communication with Dayton Water throughout the project is imperative. A kick-off and at least six progress meetings will be held with Dayton Water throughout the project, along with site visits and workshops as required. The review process will include workshop(s) with a peer municipality to discuss best practices of facility master planning, operations, and maintenance. The selected firm should be readily available for consultation regarding related wastewater issues throughout the project.

The findings and recommendations will be summarized in a Facility Master Plan report and presented to Dayton Water in a workshop format. The draft report will be submitted to Dayton Water for review and comment. The Consultant will address Dayton Water's comments and submit a final version of the Facility Master Plan. This process may include multiple sessions to ensure all plans are in the best interest of the City.

After completion of the Facility Master Plan, the final improvements will be incorporated into Dayton Water's capital improvement program. Design and construction of the improvements will be completed over the subsequent years. The City shall have the right to bid improvements separately.

Consultant will be required to provide, at a minimum, the following deliverables:

- Kickoff Meeting (Agenda and Minutes)
- Min. of Six (6) Progress Meetings (Agendas and Minutes)
- Facility Site Visit
- FMP/AMLT Interviews (Agendas and Minutes)
- Data Review Report and Memorandum
- LOS Workshop and LOS Management Workshop
- Functional Requirements and Planning Criteria Workshop (Agenda and Minutes)
- Functional Requirements and Planning Criteria Technical Memorandum
- Updated WRF Baseline Survey
- WRF GIS System (ESRI geodatabase and ESRI LGIM)
- Plant GIS Training for WRF
- Calibrated Plant Hydraulic Model (InfoWorks)
- Plant Process Model and Operations Tool Meetings (Agendas and Minutes)
- Calibrated and Updated Plant Process Model with Operations Tool (GPS-X/Hydromantis)
- Plant Hydraulic and Plant Process Model Training
- Lowest Level of Asset ID Recommendations and Example Asset Definitions
- Asset Inventory Technical Memorandum
- Asset Inventory Review Meeting with FMP/AMLT (Agenda and Minutes)
- Asset Hierarchy, ID Definition, and Procedure Technical Memorandum
- Asset Hierarchy, ID Definition, and Procedure Meeting with FMP/AMLT (Agenda and Minutes)
- Develop Asset Data Collection Forms and Business Process

- Asset Data Collection Forms and Procedures Meeting (Agenda and Minutes)
- Five Field Tablets with Selected Software Installed
- Functionality Assessment of MarshallGIS GeoKNX and/or Recommended Solution
- Condition Assessment Procedural Training
- Asset Assessment Plan Workshops (Minimum of two with Agendas and Minutes)
- WRF Condition Assessment Pilot Memorandum
- WRF Condition Assessment Pilot Review Meeting (Agenda and Minutes)
- WRF Condition Assessment Results Memorandum
- WRF Condition Assessment Results Review Workshop (Agenda and Minutes)
- Operations and Maintenance Recommendations Memorandum
- Operations and Maintenance Recommendations Workshop
- Opinion of Probable Cost to Repair or Replace each asset
- Business Risk Workshop (Agenda and Minutes)
- Business Risk Technical Memorandum
- Five Year Detailed Plan, Costs, and Schedule for Rehabilitation and Replacement
- Twenty-Five Year Detailed Plan, Costs, and Schedule for Rehabilitation and Replacement
- Energy Audit Workshop (Agenda and Minutes)
- Energy Audit Technical Memorandum
- Odor Control Master Plan Recommendations Report
- Information Technology Recommendations Report
- Gas Reuse Recommendations Report
- Standby Power Generation Recommendations Report
- Non-Potable Water Reuse Recommendations Report
- Nutrient Removal Technical Memorandum
- Western Regional WRF Technical Memorandum
- Alternatives Analysis Evaluation Criteria Meeting (Agenda and Minutes)
- Ten (10) Process Alternative Technical Memorandums
- Ten (10) Process Alternative Meeting (Agenda and Minutes)
- Scenarios Evaluation Workshop (Agenda and Minutes)
- Draft Alternatives Analysis Report Workshop (Agenda and Minutes)
- Final Alternative Analysis Report
- Final Alternative Analysis Report Workshop (Agenda and Minutes)
- Multiple Financial Analysis Workshops (Agendas and Minutes)
- Financial Analysis Executive Management Meeting (Agenda and Minutes)
- Min. of Four (4) Conceptual Implementation Plan Meetings/Workshop (Agendas and Minutes)
- Conceptual Implementation Plan
- Multiple Draft Facility Master Plans
- 15 Hard Copies of the Final Facility Master Plan
- Electronic copies of the Final Facility Master Plan (Word and Adobe)
- Min. of One (1) Draft Facility Master Plan Meeting
- Facility Master Plan "Lesson's Learned" Meeting

TASK 1 - PROJECT MANAGEMENT AND ADMINISTRATION

TASK 1.1 - KICKOFF MEETING

The Consultant shall conduct and facilitate a project kick-off meeting that includes the Consultant's key project personnel and Dayton Water staff to define lines of communication, protocol, and discuss goals and objectives of the project, provide expectations for Dayton Water staff, and review the scope and schedule for the project. The Consultant shall prepare and supply the meeting agenda and meeting notes.

TASK 1.2 - INITIAL MEETINGS

The Consultant shall conduct interviews, as necessary, with the Facility Master Plan (FMP) team. The FMP team will be a mixture of Department of Water and Division of Water Reclamation staffs. The goals of the interview are to gain an understanding of Dayton Water's processes, procedures, and available data. The Consultant shall prepare and supply the agendas and meeting notes for the meetings. To gain an understanding on Dayton Water asset management requirements, the Consultant shall interview the Asset Management Leadership Team (AMLT):

- Water Utility Field Operations (WUFO) Administrator (2)
- Water Reclamation Manager
- Water Reclamation Representative
- WUFO Manager
- Environmental Division Representative
- Water Financial Analysis Supervisor

- Water Supply and Treatment Administrators (2)
- I.T. Project Manager
- Senior Engineer II (Planning)
- GIS coordinator
- Water Information Management System (WIMS)
 Supervisor

TASK 1.3 - DATA REVIEW

The Consultant shall review relevant information, existing reports, model data, work order data and other related documents supplied by Dayton Water, including flow, operating data, operations and maintenance logs, GIS data, and Computerized Maintenance Management System (CMMS) data, relevant sections of existing reports and other related documents supplied by Dayton Water, including water quality, geotechnical soil borings and other relevant site information.

Specific information the Consultant shall review and evaluate includes: flow, process data and load trends, laboratory analysis from LIMS system, an existing Emergency Action Plan, WRF web based O&M Manual, Infor data tables (Dayton's CMMS), and existing GIS. The Consultant shall prepare a Data Review Report summarizing the existing data, any significant findings, and recommendations regarding additional data collection needs. The memorandum shall summarize flow and load trends.

TASK 1.4 - SET TARGET LEVELS OF SERVICE

The Consultant shall lead the development of a Level of Service (LOS) Statement. The Level of Service Statement defines the way in which Dayton Water staff, managers, and operators desire the system to perform over the long term. Levels of service will be established in every performance area of the plant including: Pumping, Preliminary Treatment, Liquid Stream, Solid Stream, Electrical, I&C, Odor Control, and support systems.

The Consultant shall conduct a workshop with AMLT and WRF staff to draft Level of Service Statement for review and comment by Dayton Water. In addition, the Consultant shall conduct a management workshop to discuss the draft Level of Service Statement and Dayton Water comments.

TASK 1.5 - FACILITY SITE VISIT

As part of this task, the Consultant shall include a site visit to an advanced wastewater treatment facility jointly selected by Dayton Water staff and the Consultant for the FMP team. Three facilities shall be reviewed. The

facilities shall be among the best-in-class for biological nutrient removal and asset management; in addition, provide a good model for Dayton Water to work towards as a result of the FMP.

TASK 1.6 - FACILITY MASTER PLAN GOALS AND OBJECTIVES

The Consultant shall develop functional requirements and planning criteria for the FMP against which the alternatives and scenarios will be measured. References to specific criteria should be annotated as well as assumptions used for anticipated future regulations. The Consultant shall prepare a technical memorandum summarizing the functional requirements developed and the anticipated future regulations and present the technical memorandum to Dayton Water's management and technical staff for review and comment. This document is expected to include:

- Project background and introduction
- Facility function description
- Flow and load projections
- Project scope, objectives, and operational philosophy
- Technical criteria (with justifications)
- Human factors criteria. (work spaces/working conditions)
- Special criteria (if any)
- Regulatory requirements
- Financial constraints

The Consultant shall revise and resubmit the final technical memorandum after the resolution of all Dayton Water comments. The Consultant shall prepare and supply the meeting agenda and meeting notes.

TASK 2 - DEVELOP SITE AS-BUILT

TASK 2.1 - UPDATE SITE AS-BUILT

The Consultant shall update the baseline survey to which future projects and all geometrics will be referenced for development of the Plant GIS in Task 2.2. This includes:

- Reviewing existing construction as-built and record drawings for site utilities and buildings
- Assimilating overall facility site as-built in AUTOCAD format, coordinating with FMP team the number of printed and electronic copies that need to be made available,
- Locating and verify critical elevations and establish a reference benchmark circuit for all construction,
- Locating and verify existing utilities, yard piping, surface improvements, structure corners and pertinent property corners,
- Field locating and identifying topographic details within an agreed upon boundary for the project site,

Ground Penetrating Radar (GPR) shall be used to locate buried features at the WRF. All buried features larger than 20-inches will be marked on each outside edge to appear as a double-line on the drawings. GPR shall be used to locate utilities at all plant street intersections and two additional congested areas designated by Dayton Staff. Field surveying will locate building corners and FF elevations in order to link construction drawings to one NAV Datum. Reference points shall be established for future use. Areas of question after the use of GPR shall be presented to Water Reclamation staff and use of hydro-excavation shall be considered for location confirmation as part of the updated Site As-Built and contract price.

TASK 2.2 - PLANT GIS

Provide a complete Facility GIS System utilizing the survey data, including building and structure footprints, connectivity and site piping information collected during the Site As-Built work. Plant GIS work will be

coordinated with Water Department GIS coordinator and plant staff. All data will be projected in NAD State Plane Ohio South coordinate system. Provide files in standard ESRI file geodatabase format utilizing ESRI's local government information model scheme.

Consultant shall develop the GIS for spatial and feature information storage and access. Linking images and information stored elsewhere shall be an integral part of development of the GIS. The GIS shall tie to the Asset Management System developed as part of this project for buried assets outside buildings. This newly developed GIS shall be used to develop the InfoWorks hydraulic model. Consultant will coordinate training on use of Plant GIS for Water Reclamation staff.

TASK 3 - MODELING

TASK 3.1 - SEWER SYSTEM MODEL

Dayton Water is working with Emnet to monitor sewer system flows. Emnet data will be used to validate and eventually calibrate the existing sewer system model. Dayton Water shall provide the Consultant with current data that is being used for model validation/calibration of the Dayton sewer system model. Consultant shall use rain/flow data from Emnet and system model as a supplement to plant flow data in development of flow projections for the WRF.

TASK 3.2 - DEVELOP PLANT HYDRAULIC MODEL

The Consultant shall collect data and develop a calibrated plant hydraulic model. The model shall include hydraulic profiles at various flow conditions. Hydraulic restrictions shall be identified and solutions considered as part of the FMP. The hydraulic model will be delivered to Dayton Water WRF Engineer at completion of the project. InfoWorks shall be used to develop the Plant Hydraulic Model.

TASK 3.3 - DEVELOP PLANT PROCESS MODEL

Calibrate and provide software updates to the current plant process model for use in identification of treatment bottlenecks, development and comparison of alternatives. The process model will be developed with sufficient detail to allow users to manipulate individual treatment trains where desired by the OWNER (i.e. individual treatment trains will be provided in the models). The model will be developed and calibrated to Level 2 standards, per Methods for Wastewater Characterization in Activated Sludge – Water Environment Research Foundation (WERF) 2003; for the Dayton Water WRF to simulate the existing facilities and then project performance under future design conditions. These simulations will assist in evaluation of process modifications to meet the anticipated future regulatory limits. In order for the Consultant to calibrate the model to Level 2 standards, a two week sampling campaign is required.

Consultant will conduct a one day site visit to the plant during review of the existing information. The purpose of the visit will be to review current operations, develop understanding of treatment processes at the plant, and to identify potential issues that need additional clarification or sampling. Locations for process sampling will also be verified during the site visit.

The Consultant will design a two-week intensive sampling effort to more accurately characterize the raw influent and primary effluent. The Consultant will meet with Dayton Water to discuss the extents of sampling prior to moving forward. The Consultant will work with Dayton Water to implement the intensive sampling. The Consultant will take the lead in collecting samples and sending them out for analysis. The Consultant shall recommend additional daily sampling that Dayton Water start collecting to support the model development.

Consultant will develop an operations tool designed to allow for operations optimization. The operations tool will consist of the model with a customized interface for input of set and agreed to parameters. The parameters,

simulations, and operational scenarios desired will be discussed and agreed to with Dayton at a meeting with the project team.

The operations tool will be designed to operate external to the SCADA system but will be accessible from operator work terminals. Operator interface tool will run with model simulation software and a customized interface for the simulation software. The tool will be designed so that data can be imported from the plant SCADA system, but will not be automatically updated with real time data.

No automatic updating of the operator interface tool will be included. Data and inputs will need to be manually initiated for each scenario, but the ability to modify the tools for automatic imports will be included for future modifications. Prior to commencing with setup of the operations tool, Consultant will meet with Dayton Water management to discuss the desired function of the operations tool and desired features. Consultant will also meet with plant operations staff during development of tools to discuss the interface and features of the tool.

Meetings will be held to review the sampling results, model development, model calibration, model report, and to conduct training agendas. Consultant will coordinate training of water reclamation staff for hydraulic model, process model, and operator interface tool. Training of water reclamation staff will be provided in workshop(s) fashion at the plant.

Consultant shall update and calibrate the WRF GPS-X model. In addition, utilize the Hydromantis SimuWorks user interface that enhances Dayton's user interface with the software. Consultant shall not include any third party software costs with this proposal response. The City shall only evaluate professional service fees associated with implementation of the WRF GPS-X model and SimuWorks interface identified within this scope of services.

TASK 4 - DEVELOP ASSET MANAGEMENT PLAN

TASK 4.1 - DEVELOP ASSET REGISTRY

The Consultant shall develop an asset hierarchy compatible with Infor for the plant assets. In addition, the Consultant shall populate information required to complete the Asset Management Plan (AMP). The components included in this task are as follows:

TASK 4.1.1 - DETERMINE LOWEST LEVEL OF ASSET TO BE GIVEN UNIQUE IDS

Based upon a review with AMLT and FMP team of existing information, industry standards, interviews with staff, current Dayton Water workflow, Infor capabilities, and Consultant experience, make recommendations on the lowest level of asset to be given unique IDs (i.e. dollar threshold, individual valves, etc.). Consultant shall provide best practices from industry guidance such as the International Infrastructure Management Manual (IIMM) and the ISO 14224 standard for equipment and maintenance data. Consultant shall provide example asset definitions from other utilities for Dayton Water to review.

TASK 4.1.2 - ASSET INVENTORY

Consultant shall review the existing database structure, available fields for asset inventory, and Infor workflow process. This information should be used to create structured asset hierarchy trees and review work needed to convert current data structure into proposed hierarchy trees. A gap analysis shall then be conducted within Infor on the possible physical, performance, financial, and asset management attributes necessary for a successful AMP.

Consultant shall review findings in a meeting with the Dayton Water AMLT and summarize findings in a technical memorandum.

TASK 4.1.3 - DEVELOP ASSET HIERARCHY AND ASSET ID DEFINITION AND PROCEDURE

Consultant shall facilitate the development of a consistent hierarchy and asset identification definition across the WRF. Based on current asset hierarchy, asset ID, and data structure, develop recommendations for asset ID generation (i.e. intelligence level), data collection procedures, or ways to modify current procedures. Consultant shall provide multiple examples of hierarchy and asset identification creation best practices, including SOPs for maintaining the hierarchy to add, edit, and retire assets. Defined asset SOPs will aide WRF in understanding asset data workflows and procedures. The asset hierarchy will serve as the framework for evaluating assets and collecting data on those assets.

Consultant shall review findings in a meeting with the Dayton Water AMLT and summarize findings in a technical memorandum.

TASK 4.1.4 - DEVELOP DATA COLLECTION FORMS

Consultant shall develop a business process for implementation of real time asset data collection forms to be utilized for the asset inventory data collection on a tablet in the field for seamless data entry into Infor. Consultant will provide 5 field rated tablets with software installed. Consultant will coordinate training for Water Reclamation staff for the software and tablets. Dayton Water is exploring the use of MarshallGIS GeoKNX as the software platform for this effort. Consultant shall perform a functionality assessment to verify if MarshallGIS GeoKNX is the appropriate software platform for Dayton Water. Consultant shall make recommendations for other platforms if Marshall GIS GeoKNX is not selected as part of the functionality assessment. Lastly, the Consultant shall supply options for bar coding, QR coding, or options for assets to link directly to Infor.

Consultant shall work with Dayton's AMLT and WRF staff teams to develop a data access and tagging system for ease of getting data from a piece of equipment in the field and making it available to a mobile device.

TASK 4.2 - PERFORM CONDITION ASSESSMENT

The objective of this task is to collect asset information utilizing the real-time asset data collection forms, and obtain a current assessment of both the physical and performance condition of assets through a combination of site visits and data review. Condition assessment shall support the risk based capital planning and provide long-term value for WRF O&M staff. Condition scores shall be established for the assets based on the physical condition and performance condition. The process assets included will be determined by consultant, FMP team, and the AMLT. Building assets, work spaces/working conditions, and facility electrical/I & C gear are to be included in the assessment (site work, structural, architectural, HVAC/plumbing, electrical, instrumentation) as well. Dayton Water staff will accompany Consultant staff during the assessment. The Consultant is to train the Dayton Water staff on the condition assessment process. The tasks included in this objective are as follows:

TASK 4.2.1 - DEVELOP ASSESSMENT PLAN:

Consultant shall develop an assessment plan by asset class, including inspection requirements, testing to be conducted, scoring procedures, and forms. The condition scoring and life reduction factors shall be standardized for all asset categories following best practice recommendations from the IIMM.

Consultant shall provide a minimum of two (2) workshops to Dayton Water staff to develop, review, and finalize the Assessment Plan.

TASK 4.2.2 - CONDITION ASSESSMENT OF PLANT ASSETS:

The process and hydraulic capacity of the plant assets will be established through previous FMP scope items. In addition, work order information is available in Infor. The Consultant will use the information to make recommendations on additional testing, assess and score the process, and determine the asset performance (process and hydraulic). Each major process shall have failure modes (e.g. mortality, capacity, level of service,

efficiency, etc.) and process and/or redundancy limitations identified. The asset information shall be collected using the process developed by the Consultant with Dayton Water input. Consultant will be responsible for conducting an initial pilot using one process area at the WRF to validate criteria, scoring, and ensure proper data transfer into Infor. Lessons learned from the pilot step will be discussed in a meeting with Dayton Water before proceeding to remaining processes.

Consultant shall conduct a workshop upon completion of entire task to review overall results, potential failure modes by process, and redundancy limitations.

TASK 4.2.3 - DETERMINE ASSET RESIDUAL LIFE:

The Consultant shall establish an estimated remaining service life for each asset based on install date, manufacturer's published literature (where available), industry standards and reference material, engineering judgment, operator input and experience with the system, service history and condition assessment. Information shall be entered into Infor for each asset.

TASK 4.2.4 - SUMMARIZE FINDINGS:

The Consultant shall provide a technical memorandum summarizing condition assessment findings. The memorandum shall include analysis by asset class (plants, plant process, etc.). In addition, the Consultant shall indicate the top priorities based on findings and determine reassessment schedules for each asset class based on risk scoring. The findings shall be presented and reviewed in a workshop. The Consultant is to include the data collected by Dayton Water staff.

Consultant shall provide a technical memo that captures all data updates, including follow-on data collection by Dayton staff, and any revisions to the assessment methodology based on lessons learned. The results shall provide a solid foundation for the risk assessment and CIP development in future tasks.

TASK 4.3 - OPERATION AND MAINTENANCE REVIEW

The Consultant shall review current Dayton Water maintenance and operation plans based on the proposed level of service and recommend modifications. In addition to reviewing O&M plans, job shadowing of operations staff is recommended to understand the nuances of the Dayton WRF.

The Consultant shall present recommendations in a workshop and summarize in a technical memorandum.

TASK 4.4 - DETERMINE LIFE CYCLE AND REPLACEMENT COSTS

Prepare an opinion of probable cost to repair or replace each asset. The opinions of cost will be planning level. Using the "top down" approach, opinions of cost will be developed for each asset block and will include all work assumed for full replacement of the asset.

TASK 4.5 - DETERMINE BUSINESS RISK

This project focuses on the business risk specifically related to plant assets. The Consultant shall review the current WRF risk model for use in this step. The Consultant shall recommend modifications if needed and coordinate with the AMLT. Based on the modified tool, including consequence of failure and likelihood of failure scores, the Consultant shall:

- Populate the scoring system (matrix) to rank assets based on their probability of failure. Consider physical, performance, operation and maintenance, mechanical, electrical and other factors as appropriate.
- Populate the scoring system (matrix) to rank assets based on the impact their failure would have on the
 system's ability to meet the desired level of service (consequence of failure). Consider remaining useful
 life, protection of public health and welfare, importance of the asset to operation of the system, and
 redundancy or lack thereof.

- Combine the probability of failure and consequence of failure at the asset class level scoring into the Business Risk Evaluation (BRE) score.
- Work with Dayton Water staff to implement the risk evaluation model in the Infor asset analysis tool.
- Rank assets in order of importance (priority) based on a BRE score.
- Using a reliability centered maintenance approach, classify maintenance, renewal and replacement recommendations for each asset (run to failure, preventative maintenance, predictive maintenance, etc.). Coordinate a workshop/training for WRF staff on reliability centered maintenance.
- Likelihood of Failure, Consequence of Failure, and Redundancy Factor shall be developed and utilized.
- Develop a technical memorandum summarizing scoring, findings and recommendations.
- Review the scoring, findings and recommendations in workshop.

TASK 4.6 - OPTIMIZE INVESTMENTS

Consultant shall develop a detailed plan and schedule for the rehabilitation and replacement of assets including an estimate of money needed each year for 5 years into the future. The plan shall detail the capital requirements and O&M requirements by asset class by year. In addition, the Consultant shall develop a high level plan and schedule for the rehabilitation and replacement of assets including an estimate of money needed each year for 25 years into the future. The plan shall detail the capital requirements and O&M requirements by asset class by year. Compare the plan to the current operating budget.

TASK 5 - ENERGY AUDIT

TASK 5.1 - ENERGY SURVEY AND ANALYSIS

Perform a campus-wide Level 2 Energy Audit in accordance with ASHRAE Procedures for Commercial Building Energy Audits, Second Edition (2011). Consultant shall utilize and review electronic operating records for the two most recent years. Consultant shall conduct an on-site audit of the facility to evaluate operations, interview operating personnel, and obtain other necessary data to understand the current WRF energy footprint. The audit shall rely solely on operating and energy use data that has already been recorded, can be provided by staff, or can be measured using spot measurements during the on-site audit.

Consultant shall prepare a technical memorandum. The technical memorandum will be presented, discussed, and modified within a workshop. The Consultant shall finalize the technical memorandum based on comments from the consultant led workshop and a final version supplied to Dayton Water.

TASK 6 - SPECIAL CONSIDERATIONS

TASK 6.1 - ODOR CONTROL

In 2014, Dayton Water completed an Odor Control Master Plan with Webster Environmental. The Consultant shall review this plan and its recommendations and include recommendations and/or modified recommendations in the alternatives and scenarios for consideration by Dayton Water.

TASK 6.2 - ADDITIONAL ITEMS:

The Consultant shall include a review of following items and include recommendations in the overall plan regarding alternative scenarios and their impact on the facility's operation.

Information Technology – Review existing hardware and software systems. Recommend upgrades and
potential opportunities for reuse of existing assets. Consider options for implementation of handheld
devices and dispersed data access and upload. Assess interface with SCADA and existing archival
systems.

- Gas Reuse –Specifically review digester gas reuse and cogeneration facility and recommend facility/operational needs or modifications.
- Stand By power generation. Review existing capacity and plant operation under power outages. Recommend needs or modifications.
- Non-Potable Water Reuse Consider opportunities for usage both internal and external to the facility.
 Examine existing non-potable water system and recommend upgrades required to match the level of service identified by usage opportunities.

Task 6.3 - Nutrient Removal Evaluation and Recommendations

The consultant shall evaluate the facility's ability to meet impending nutrient regulations and recommend the most reliable and cost effective nutrient removal option for Dayton Water Reclamation Facility. The recommendation will be delivered in the form of a technical memorandum, detailing options evaluated/modeled and reasons why each option was or was not selected. The following items will be included in the evaluation.

- Coordinate chemical phosphorus removal trials. Consultant will coordinate with owner chemical trials to evaluate the effectiveness of the following chemicals for phosphorus removal. Ferric Chloride, Sodium Aluminate, Poly vinyl aluminum chloride (PACL) and Alum.
- Model use of existing facilities for biological phosphorus removal. Use plant model to reconfigure existing tankage for phosphorus removal.
- Examine and provide an evaluation of nutrient recovery methods.
- Develop budgetary numbers for both capital and O&M, in addition life cycle cost analysis performed.

Task 6.4 – Western Regional Water Reclamation Facility Evaluation and Recommendations

The consultant shall evaluate the potential to accept wastewater flows of Western Regional Water Reclamation Facility at the Dayton Water Reclamation Facility. Western Regional Water Reclamation Facility (Western Regional) discharges to the Great Miami River at River Mile 71.48. Western Regional is an advanced treatment facility with an average design flow of 20.0 MGD originally constructed in 1978. Western Regional provides service to all or part of Moraine, West Carrollton, Kettering, Miamisburg, Centerville, Miami Township, Washington Township, and Jefferson Township. The recommendation will be delivered in the form of a technical memorandum, detailing options evaluated/modeled and reasons why each option was or was not selected. The following items will be included in the evaluation.

- Determine the necessary collection system upgrades for conveyance of current flows from Western Regional WRF to Dayton WRF.
- Provide Dayton WRF system considerations and necessary upgrades for treatment of flows and loadings
- Provide a recommendation of staffing levels for operation and maintenance if Western Regional wastewater flows were accepted at Dayton WRF.
- Provide an evaluation of treatment cost impacts to Dayton WRF
- Provide an evaluation and recommended options for handling wet weather/high flow situations
- Examine and provide an evaluation of regulatory impacts for the consolidation

TASK 7 - ALTERNATIVE ANALYSIS AND REPORT DEVELOPMENT

TASK 7.1 - ANALYSIS

The Consultant shall develop and conduct an analysis of alternatives that accomplish the technical goals and objectives (including level of service) of the FMP. Alternatives shall be categorized by driver: Infrastructure, Efficiency, or Regulatory. Evaluate schedules, minimize construction and life-cycle cost, incorporate important social and environmental benefits, and/or improve coordination between projects while considering cash flow, site utilization, risk reduction, reliability, and plant operability during construction.

The Consultant shall lead a meeting with the FMP team to develop the evaluation criteria, including the Triple Bottom Line and sustainability, and weighting factors that will be used to analyze all alternatives. The Consultant

shall initially evaluate alternatives in ten (10) areas – pumping, preliminary treatment, liquid stream, solid stream, electrical, instrumentation and control, odor control, support systems, gas reuse, and non-potable water reuse.

Coordination and brainstorming meetings shall be conducted with the FMP team during the analysis of the alternatives in the ten (10) areas. The alternatives shall include input from previous efforts, including modeling, asset management based recommendations, energy audit recommendations, special considerations, levels of service and goals and objectives. A technical memorandum shall be prepared for each of the ten (10) areas that shall present the alternatives and the associated operational strategies used to form scenarios for Dayton Water's review and comment. These technical memoranda shall include Level 5 estimated construction costs and life cycle costs for each alternative presented. Upon receipt of Dayton Water's comments, the Consultant shall lead up to ten (10) meetings with Dayton Water staff regarding the reconciliation of comments and the upcoming development of scenarios.

Considering the alternatives, the Consultant shall prepare a draft set of scenarios that include paired recommendations across all areas based on potential situations that may occur in the future. While the scenarios are being developed and analyzed, the Consultant shall further coordinate the operational strategies with Dayton Water staff. The consultant shall finalize scenarios in a workshop with Dayton Water staff.

After the development of the scenarios, the Consultant shall prepare an Alternative Analysis Report summarizing the results of the investigation including an overview of the scenarios considered in sufficient detail so that recommendations can be made. With the submittal of the official deliverable, the Alternative Analysis Report shall include the executive summaries from technical memoranda prepared for the eight (8) areas and conceptual-level estimated construction costs and life cycle costs for each of the proposed projects within the scenarios of alternatives.

The Consultant shall conduct a workshop to present the draft Alternative Analysis Report to Dayton Water's management and technical staff for review and comment. The Consultant shall revise and resubmit the final Alternative Analysis Report upon resolution of all comments. The Consultant shall prepare and supply the meeting agenda and meeting notes.

TASK 7.2 - FINANCIAL ANALYSIS

The Consultant shall provide financial data in a format compatible with Dayton Water's Proforma. Dayton Water will review the information and determine the rate impact of proposed plan. Dayton Water will review findings with the Consultant in a workshop. The Consultant will revise the proposed plan based on input and provide revised plan to Dayton Water. Dayton Water will again review the information. This process will continue until an affordable plan is established. To determine a final plan, the proposed levels of service may need to be adjusted.

Consultant will conduct the abovementioned workshop and a high level meeting with Executive Management. The Consultant shall prepare and supply the meeting agenda and meeting notes.

TASK 7.3 - CONCEPTUAL IMPLEMENTATION PLAN

The Consultant shall prepare an execution plan for the recommended scenario of alternatives that provides the schedule, sequencing, and packaging of projects from design through construction as developed through criticality and condition, cost and cash flow, individual project durations (including construction) and necessary predecessors, project tie points, site utilization and plant operability during construction. An execution plan for addressing these items shall be developed by the Consultant and presented to Dayton Water staff for input and approval.

Consultant shall conduct meetings/workshops (a minimum of four meetings shall be assumed) to present the implementation plan. The Consultant shall prepare and supply the meeting agendas and meeting notes from each of these meetings.

TASK 7.4 - FACILITY MASTER PLAN

The Consultant shall prepare a written FMP presenting the results of the above tasks. In addition to the above, the plan shall recommend staffing requirements, condition assessment frequency, and implementation schedule. The plan shall include a review and recommendation on software, specifically database/data management support tools to support the FMP implementation. A minimum of one draft FMP shall be submitted for review. Due to the expansive nature of the FMP, more than one draft may be needed to arrive at a final iteration. Revise the FMP in response to all comments from all iterations and submit up to 15 copies of the final plan. Electronic copies of the plan shall also be submitted in both Word (.docx) and Adobe (.pdf) file formats.

Consultant will conduct a minimum of one meeting to review the draft FMP with Dayton Water and receive comments. The Consultant will also conduct a "Lessons Learned" meeting to ensure future FMPs are conducted as effective and efficiently as possible.

- 2.04 PRICING STRUCTURE. Prices proposed will remain firm for acceptance within <u>180</u> calendar days after the RFP closing date.
 - The Consultant must provide a total cost, with detailed cost by each task, to accomplish the entire scope of work described herein and outlined in the proposal. The Consultant must also include an estimate of the number of work-hours by level of personnel (e.g. Project Manager, Technician, Clerical, etc.) required to complete each task identified in the consultant's proposed scope of work.
 - Provide a schedule of estimated hourly billing rates for appropriate levels of personnel who are available for assignment and proposed for the project. Provide detailed cost(s) for billing all standard, itemized expenses anticipated for performance of the project, such as travel, computer, copies, telephone, equipment rental, etc., and include a desired markup, if any, for these expenses.

SECTION 3 – REQUIREMENTS AND CONDITIONS FOR ALL PROPOSERS

- 3.01 TAX EXEMPTION. All items purchased under this contract will be exempt from the State of Ohio Sales Tax as provided for in Section 5739-02(b)(1) of the Revised Code of Ohio, and will be exempt from the State of Ohio Use Tax, Section 5741.02(C)(2). Blanket Certification of Exemption Forms will be furnished to the Proposer by the Division of Purchasing.
- 3.02 PROPOSER AFFIDAVIT. If the successful proposer should be a corporation not incorporated under the laws of the State of Ohio, a certificate from the Secretary of State showing the rights of the successful proposer to do business in the State of Ohio shall be furnished. Each proposer is required to submit with their bid, an Affidavit stating that neither the proposer nor agents thereof, nor any other party of the proposer has paid or agreed to pay directly or indirectly, any person, firm or corporation, any money or valuable consideration for assistance in procuring or attempting to procure the contract herein referred to, and further agreeing that no such money or reward will hereafter be paid.
- 3.03 PROCUREMENT ENHANCEMENT PROGRAM. It is the policy of the City to promote full and equal business opportunity to all persons doing business with the City. The City must ensure that businesses seeking to participate in contracting and procurement activities with the City are not prevented from doing so on the basis of the race or gender of their owners. The City is committed to ensuring that it is not engaged in passive participation in any form of discrimination. (R.C.G.O. Section 35.32) It is the City of Dayton's position to encourage the greatest participation possible on all projects connected with any aspect of the City's auspices through the Procurement Enhancement Program (PEP). All contractors are encouraged to review the list of Minority, Women and Small Businesses at www.daytonohio.gov/departments/hrc for certified subcontractors.

- 3.04 PROPOSER'S FINANCIAL OBLIGATION TO THE CITY. No bid may be accepted or contract awarded to any person, firm or corporation that is in arrears or in default to the City, or that is a defaulter of surety or otherwise upon any obligation to the City, or has failed to perform faithfully any previous contract with the City.
- 3.05 PROPOSER'S INCURRED COSTS. Each proposer shall be responsible for all costs incurred in preparing a response to this RFP. All materials and documents submitted by the proposer in response to this RFP shall become the property of the City, and shall not be returned. Respondents selected for further negotiations, as well as the proposer ultimately selected to enter into a contractual agreement with the City, shall be responsible for all costs incurred by it during negotiations.
- 3.06 AFFIRMATIVE ACTION ASSURANCE (AAA). The selected Contractor must file an Affirmative Action Assurance form (AAA Form) with the City's Human Relations Council (HRC) and obtain approval from HRC to do business with the City. You may contact the HRC for the Rules and Regulations, and the AAA Form required of vendors of the City, at:

Human Relations Council 371 West Second Street, Suite 100 Dayton, Ohio 45402 (937) 333-1413 (Office) (937) 222-4589 (Fax)

Failure to maintain a current AAA Form on file with the HRC may result in termination of the contract and/or denial of future contract awards from the City. The AAA Form must be filed annually.

3.07 STANDARD AGREEMENT TERMS FOR PROFESSIONAL SERVICES – These are standard terms are subject to change by the City prior to the award of the contract.

ARTICLE 1. TERM

The Agreement shall commence upon execution by the City and shall terminate upon expenditure of all funds provided herein or on December 31, 2017, whichever date is earlier.

ARTICLE 2. SERVICES TO BE PERFORMED BY CONTRACTOR

Contractor shall provide all services necessary to complete the Services that are described in an Attachment, Scope of Services, which is incorporated herein by reference.

ARTICLE 3. COMPENSATION

The total remuneration in this Agreement shall not exceed XXXX THOUSAND DOLLARS (\$XXX,000.00). Contractor shall submit invoices, not more frequently than monthly, for payment of the Services actually provided. Such invoices shall state the invoice period, total amount requested and Services provided during the invoice period. The City will, unless disputed, remit payment of all undisputed amounts of invoices within thirty (30) days from receipt thereof.

ARTICLE 4. CITY'S RESPONSIBILITIES

The City will furnish Contractor, at no cost or expense, all reports, records, data that might be necessary or useful to complete the Services required under this Agreement.

ARTICLE 5. STANDARD OF CARE

Contractor shall exercise the same degree of care, skill, and diligence in the performance of the Services as is ordinarily possessed and exercised by a professional under similar circumstances. Contractor shall have no liability for defects in the Services attributable to Contractor's reliance upon or use of data or other information furnished by the City or third parties retained by the City.

If, during the one year period following completion of the Services, it is shown there is an error in the Services caused by Contractor's failure to meet such standards and City has notified Contractor in writing of any such error within that period, Contractor shall perform, at no additional cost to City, such Services within the original Project as may be necessary to remedy such error.

ARTICLE 6. INDEMNIFICATION

Contractor shall indemnify and defend the City and its elected officials, officers, employees and agents from and against all claims, losses, damages, and expenses (including reasonable attorneys' fees) of whatsoever kind and nature, to the extent that such claims, losses, damages, or expenses are caused by or arise out of the performance or non-performance of this Agreement and/or the acts, omissions, or conduct of Contractor and its agents, employees, contractors, sub-contractors and representatives in undertaking and performing the Services.

This Article shall survive early termination or expiration of this Agreement.

ARTICLE 7. INSURANCE

During the term of this Agreement, Contractor shall maintain, at its sole cost and expense, no less than the following insurance issued by an insurance company authorized to conduct business in the State of Ohio and having an "A" rating or better by A.M. Best:

- (1) General Liability Insurance, having a combined single limit of \$1,000,000 for each occurrence and \$1,000,000 in the aggregate.
- (2) Automobile Liability Insurance, having a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.
- (3) Employers' Liability Insurance, having a limit of \$500,000 for each occurrence.
- (4) Professional Liability Insurance, having a limit of \$1,000,000 annual aggregate.
- (5) Contractor shall maintain errors and omissions insurance in the amount of \$1,000,000.00.

Current certificates of insurance for all policies and concurrent policies required to be maintained by Contractor pursuant to this Article shall be furnished to the City. All such insurance policies, excluding Professional Liability Insurance, shall name the City, its elected officials, officers, agents, employees, and volunteers as additional insureds, but only to the extent of the extent of the policy limits stated herein. All policies of insurance required hereunder shall contain a provision requiring a minimum of thirty (30) days advance written notice to the City in the event of cancellation or diminution of coverage

Contractor also shall maintain Workers' Compensation Insurance in such amounts as required by law for all employees, and shall furnish to the City evidence of same.

ARTICLE 8. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

Except as otherwise provided in this Agreement, documents and reports prepared by Contractor as part of the Services shall become the sole and exclusive property of the City upon payment. However, Contractor shall have the unrestricted right to their use.

Contractor shall retain its rights in pre-existing and standard scripts, databases, computer software, and other proprietary property. Rights to intellectual property that is not specifically designed or created exclusively for the City in the performance of this Agreement shall also remain the property of Contractor.

ARTICLE 9. TERMINATION

This Agreement may be terminated by the City upon written notice in the event of substantial failure by Contractor to perform in accordance with the terms of this Agreement. Contractor shall have fifteen (15) calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

The City may terminate or suspend performance of this Agreement for the City's convenience upon thirty (30) days prior written notice to Contractor. In the event of termination by the City hereunder, the City will pay Contractor for Services actually provided up to the date of termination.

ARTICLE 10. STANDARD TERMS

A. DELAY IN PERFORMANCE

Neither the City nor Contractor shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this Agreement, such circumstances include, but are not limited to, abnormal weather conditions; floods; earthquakes; fire; epidemics; war, riots, and other civil disturbances; strikes, lockouts, work slowdowns, and other labor disturbances; sabotage; judicial restraint; and inability to procure permits, licenses, or authorizations from any local, state, or federal agency for any of the supplies, materials, accesses, or services required to be provided by either the City or Contractor under this Agreement, provided the aforementioned circumstances are not due to the negligence or fault of the asserting party or any of its agents, employees, contractors, sub-contractors and/or representatives.

Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement.

B. GOVERNING LAW AND VENUE

This Agreement shall be governed by and construed in accordance with the laws of the State of Ohio, without giving effect to the principles thereof relating to conflicts or choice of laws. Any arbitration, litigation or other legal matter regarding this Agreement or performance by either party must be brought in a court of competent jurisdiction in Montgomery County, Ohio.

C. COMMUNICATIONS

Any written communication or notice required or permitted by this Agreement shall be made in writing and shall be delivered personally, sent by express delivery, certified mail or first class U.S. mail, postage pre-paid to the address specified below:

Company Name:	
Address:	
City, State Zip Code	
Attention:	
Title:	

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of Contractor and the City.

D. EQUAL EMPLOYMENT OPPORTUNITY

Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, ancestry, national origin, place of birth, age, marital status, or handicap with respect to employment, upgrading, demotion, transfer, recruitment or recruitment advertising, lay-off, termination, rates of pay or other forms of compensation, or selection for training, including apprenticeship.

It is expressly agreed and understood that Section 35.14 of the Revised Code of General Ordinances of the City of Dayton constitutes a material condition of this Agreement as fully and as if specifically rewritten herein and that failure to comply therewith shall constitute a breach thereof entitling the City to terminate this Agreement at its option and may bar Contractor from receiving future City contracts.

E. WAIVER

A waiver by the City or Contractor of any breach of this Agreement shall be in writing. Such a waiver shall be effective only in the specific instance and for the specific purpose for which it is given and shall not affect the waiving party's rights with respect to any other or further breach.

F. SEVERABILITY

The invalidity, illegality, or unenforceability of any provision of this Agreement or the occurrence of any event rendering any portion or provision of this Agreement void shall in no way affect the validity or enforceability of any other portion or provision of this Agreement. Any void, unenforceable, invalid or illegal provision shall be deemed severed from this Agreement, and the balance of this Agreement shall be construed and enforced as if this Agreement did not contain the particular portion or provision.

G. INDEPENDENT CONTRACTOR

By executing this Agreement for professional services, Contractor acknowledges and agrees that it will be providing services to the City as an "independent contractor". As an independent contractor for the City, Contractor shall be prohibited from representing or allowing others to construe the parties' relationship in a manner inconsistent with this Article. Contractor shall have no authority to assume or create any obligation on behalf of, or in the name of the City, without the express prior written approval of a duly authorized representative of the City.

Contractor, its employees and any persons retained or hired by Contractor to perform the duties and responsibilities under this Agreement are not City employees, and therefore, such persons shall not be entitled to, nor will they make a claim for, any of the emoluments of employment with the City of Dayton. Further, Contractor shall be responsible to withhold and pay, or cause such agents, contractors and sub-contractors to withhold and pay, all applicable local, state and federal taxes. Contractor acknowledges its employees are not public employees for purposes of Ohio Public Employees Retirement System (OPERS) membership.

H. ASSIGNMENT

Contractor shall not assign any rights or duties under this Agreement without the prior written consent of the City. Unless otherwise stated in the written consent to an assignment, no assignment will release or discharge the assignor from any obligation under this Agreement. Nothing contained in this Article shall prevent Contractor from employing independent Contractors, associates, and subcontractors to assist in the performance of the Services.

I. THIRD PARTY RIGHTS

Except as expressly provided in this Agreement, nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the City and Contractor.

J. AMENDMENT

The parties may mutually agree to amend this Agreement. However, no such amendment shall be effective unless it is reduced to a writing, which references this Agreement, executed by a duly authorized representative of each party and, if applicable or required, approved by the Commission of the City of Dayton, Ohio.

K. POLITICAL CONTRIBUTIONS

Contractor affirms and certifies that it complies with Ohio Revised Code § 3517.13 limiting political contributions.

L. INTEGRATION

This Agreement represents the entire and integrated agreement between the City and Contractor. This Agreement supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this Agreement.



City of Dayton, Ohio
Department of Water
Professional Engineering Services For Master Plan For City Of Dayton OH's Water Reclamation Facility
RFP No. 16031D
April 2016

EXHIBIT A – LETTER OF TRANSMITTAL

The undersigned hereby certifies that items furnished as a result of this proposal will be in full accordance with the City of Dayton specification applying thereto unless exception are stated above.

The Proposer's name and address exactly as it would appear in a contract:
Entity Name:
Street Address:
City, State, Zip:
Proposer's Phone Number:
Proposer's Fax Number:
Proposer's E-mail Address:
Form of Ownership
If a corporation, state of incorporation:
Federal Identification Number (or SSN if sole proprietorship):
Please include your IRS Form W9 with your proposal.
I certify the proposing entity complies with City of Dayton Ordinance #30829-09 and the City's Revised Code of General Ordinances Section 35.70 through 35.74 regarding Living Wages. Yes No
SIGNATURE:
PRINTED NAME AND TITLE:
By signing this page, you state that you are an authorized representative, and have reviewed and are presenting thi proposal on behalf of your business entity. Please continue completing this exhibit on the next page.

City of Dayton, Ohio Request for Proposal (RFP) No. 16031D

$\pmb{EXHIBIT\ A-LETTER\ OF\ TRANSMITTAL\ (continued)}\\$

COMPANY PROFILE AND BACKGROUND

Name of Proposing Company:			
Company's Primary Business - S number of employees assigned to		business, the number of years in the in-	dustry, and the
Primary Business	ned		
If a corporation, state of incorpora	ntion:	·	
		suits either with the City of Dayton limited to Federal, State, Local or other	
Local Office of Dromeson, Office	magnest to Douton Object		
Local Office of Proposer: Office	nearest to Dayton, Onio:		
Federal Identification Number (or	SSN if sole proprietorship)	##-######	
Key Personnel:			
Name	Title	Contact Information: Mailing address, telephone number, fax number and email address	Designated as Primary Contact for the City of Dayton?

Name	Title	Contact Information: Mailing address, telephone number, fax number and email address	as Primary Contact for the City of Dayton? YES / NO



City of Dayton, Ohio
Department of Water
Professional Engineering Services For Master Plan For City Of Dayton OH's Water Reclamation Facility
RFP No. 16031D
April 2016

EXHIBIT B - REFERENCES FOR PROPOSING COMPANY

All references shall be those in which proposing company has performed and completed Master Plans for listed companies.

	telephone numbers for at least three references presently or previous. 16031D. Do not use the City of Dayton as a reference.	- sly
Company Name:		
Address:		
Contact Person:		
Telephone Number:	Fax Number:	
Email Address:		
Company Name:		
Address:		
Contact Person:		
Telephone Number:	Fax Number:	
Email Address:		
Company Name:		
Address:		
Contact Person:		
Telephone Number:	Fax Number:	
Email Address:		



City of Dayton, Ohio
Department of Water
Professional Engineering Services For Master Plan For City Of Dayton OH's Water Reclamation Facility
RFP No. 16031D
April 2016

EXHIBIT C – PRODUCT MANUFACTURE LABOR STANDARDS: VENDOR COMPLIANCE FORM

By informal resolution 301-97, the City of Dayton is prohibited from purchasing, leasing, renting or taking on consignment goods for use or for resale by the City which were produced under sweatshop conditions.

The City of Dayton requests the following information concerning the products you intend to provide to the City as a result of this bid. This information will allow us to determine your products' compliance with the standards outlined in informal resolutions 301-97.

We require that you make a good faith effort to ascertain the following about the factories which manufacture the products you intend to supply to the City and that you make information available to us for our verification of your claims.

<u>Child Labor.</u> The factory or producer does not employ anybody younger than the legal age as established by the jurisdiction in which such factory or producer is located for children to work or participate in the production.

<u>Forced Labor.</u> The factory or producer does not use forced labor of any kind-prison labor, indentured labor or bonded labor. However, goods produced by prisoners and/or patients as part of a formal rehabilitation or treatment program shall not be considered "forced labor" under the terms of this section.

<u>Wages and Benefits.</u> The factory or producer pays and/or provides at least the minimum wages and/or benefits as required by law in the jurisdiction in which the factory or producer is located.

<u>Hours of Work.</u> Employees are not required to work more hours than the maximum allowed by law for the jurisdiction in which the factory or producer is located.

<u>Worker Rights.</u> The factory or producer makes available to its employees such rights and procedures as required by law for the jurisdiction in which the factory or producer is located.

<u>Health and Safety.</u> The factory or producer provides at least the minimum safe and healthy working environment as required by law for the jurisdiction in which the factory or producer is located.

<u>Notice to Employees.</u> The factory or producer provides any and all applicable notices to its workers as required by law for the jurisdiction in which the factory or producer is located.

This compliance form must be submitted with your bid. If at any time your products are found to be out of compliance with these standards, or if you refuse to provide information to the City for our verification of compliance, the City reserves the right to terminate contracts for those products.

ity of Dayton Ref. No.:	
idding Company:	
ddress:	
gnature/Title:	
ederal I.D.#:	
hone No.:	
exNo.:	

City of Dayton, Ohio EXHIBIT C - 1

City of Dayton, Ohio Professional Engineering Services For Master Plan For City Of Dayton OH's Water Reclamation Facility RFP No. 16031D April 2016

EXHIBIT D – PARTICIPATION/WAIVER REQUEST FORM

Project Name:

(Circle one: SBE/MBE/WBE/DLSB/DBE/HUD Section 3) PARTICIPATION FORM

This form may be used for	r more than o	one funding sou	arce. City of Day	ton general fund and	d Si	tate of Ohio funds: The City o	f Dayton has adopted procurement
programs for Minority-owned, Woman-owned, Small Business Enterprises, and Dayton Local Small Business in accordance with Sections 35.30 – 35.68 of							
the Revised Code of General Ordinances (R.C.G.O.), inclusively. Federal funds: The City of Dayton is committed to meeting HUD-established							
	subcontracting and employment opportunities for HUD Section 3 companies certified with the Human Relations Council. This commitment applies to all						
							l complies with the DBE program.
							mining the level of participation
							m must be utilized to indicate
•	•	•	•		•		ess, etc. of the subcontractor, type
						se as many copies of this form	
subcontractors. Should yo	u have questi				Ke	lations Council (HRC) Office	. (937) 333-1403.
		Plea	ase Check One	!			
Firm Name Tay I D	Prime Contract	Joint Venture	Supply or Service	Construction Subcontract			
Firm Name, Tax I.D. Number and Mailing	Bid	Bid	Subcontract	Subcontract		Type of Service or Supply to	Type of Construction Work to be
Address						be Provided	Performed
	<u> </u>			Ш			
Certified Business Firm Na	ame:						
Tax I.D. Number:							
Street Address:							
City/State/ Zip Code:					\dashv		
Phone (area code/#):	E-mail:						
Filone (area code/#).	E-IIIaII.						
						\$ to	Total %
Total \$ Amount of PRIME	CONTRACT	OR'S Base Bio	d:	sul	bco	ntract	subcontract:
PRIME CONTRA	CTOR'S REPI	RESENTATIVE		Street Add	dre	ss	
Print Name:							

City/State/Zip

Sign Name:

City of Dayton, Ohio Department of Water Professional Engineering Services For Master Plan For City Of Dayton OH's Water Reclamation Facility RFP No. 16031D April 2016

WAIVER REQUEST DOCUMENTED ACTIVIT	Y FORM Date
Project:	Participation Goal (list only one):

A bidder must **submit** a **separate form for each goal** for which you are requesting a waiver. A bidder requesting a total or partial waiver of the, **MBE/WBE/SBE/DLSB or HUD3** Participation Goal must maintain supporting documentation and will be required to provide such documentation within two days of its request. The bidder must provide a written explanation of the good faith effort for all activities listed on the wavier form at the time the bid is submitted. If no explanation is provided, the wavier form will not be accepted. The City of Dayton Human Relations Council (HRC) shall review and evaluate the bidder's efforts to meet and comply with the project participation goal. A bidder will be granted a waiver for the **MBE/WBE/SBE/DLSB or HUD3 goal based on your good faith efforts;** and only where the HRC determines that the bidder has completed all items in the following list of activities. In determining whether a bidder has made good faith efforts, the Executive Director of the Council, or his/her designee, may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful lowest and best bidder fails to meet the contract goal, but others meet it, the Executive Director of the Council, or his/her designee, may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. **The waiver request form must be submitted with your bid if you are requesting a waiver of any goal.**

Check if completed	Activity Description
	Solicited the interest of all certified MBE/WBE/SBE/DLSB or HUD3 having the capability to perform the work of the contract. The bidder must solicit this interest at least ten (10) business days before bid submittal deadline in order to allow the MBE/WBE/SBE/DLSB or HUD3 sufficient time to respond to the solicitation. Electronic communication will not be deemed as sufficient good faith effort, if it is the sole method of communication used.
	Divided contract work items into economically feasible units to facilitate MBE/WBE/SBE/DLSB or HUD3 participation, even when the bidder might otherwise prefer to perform these work items with its own forces.
	Negotiated with MBE/WBE/SBE/DLSB or HUD3 subcontractors, and has taken the subcontractors' price and capabilities, as well as the contract goals, into consideration. Rejected MBE/WBE/SBE/DLSB or HUD3 as being unqualified only with reasons based on a diligent investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
	Provided interested MBE/WBE/SBE/DLSB or HUD3 with plans and specifications at no cost, or directed to, the Minority Business Assistance Center (MBAC) for information about the plans, specifications, and requirements of the contract at least ten (10) business days of the bid submittal deadline in order to assist them in responding to a solicitation.
	Sought the assistance of the Minority Business Assistance Center (MBAC) or used the services of community organizations, contractors' groups, local, state or federal business assistance offices, or similar organizations to find subcontractors certified as (circle one: MBE/WBE/SBE/DLSB or HUD3). Contacting HRC for the certified list will not be deemed as sufficient good faith efforts.
Bidding Company Name:	

City of Dayton, Ohio EXHIBIT D-2